DOCUMENT RESUME

ED 220 858 CS 207 187

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TITLE Lend Me a Hand: A Demonstration Lesson for a Biology/English Cluster.
PUB DATE Jul 82
NOTE 11p.; Paper presented at the National Endowment for the Humanities/Beaver College Summer Institute for Writing in the Humanities (Glenside, PA, July 1982).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Biology; *English Instruction; *Fused Curriculum; Higher Education; *Interdisciplinary Approach; *Lesson Plans; *Science Instruction; Student Writing Models; *Writing Instruction
IDENTIFIERS Winterowd (W Ross)

ABSTRACT

The first in-class assignment for the English section of a Biology/English cluster provides students with an opportunity to observe, record, and organize data that are immediately available. The students first describe the hand with which they are not writing and then reorganize their observations into a brief paragraph. Next they read aloud and compare their paragraphs. Then the teacher reads them a variety of literal and metaphoric definitions of "hand." In the next part of the lesson, the students rearrange their original observation notes and write new paragraphs organized from the smallest unit observed to the largest. Then, after the teacher reads W. Ross Winterowd's "The Five Perspectives" to them, they are asked to write a journal entry for homework that incorporates their observations and conclusions into the categories Winterowd suggests. In order to help the students make cross curricular connections, the discussion in the next class focuses on how the data would have been organized for a biology assignment. By the end of this assignment students (1) begin to observe and record available data, (2) see relationships among and between objects observed, (3) become aware of the intended audience of a piece of discourse, and (4) use writing as a mode of learning transferable to biology. (An appendix contains student writing resulting from this lesson.) (JL)

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LEND ME A HAND:
A DEMONSTRATION LESSON FOR A BIOLOGY/ENGLISH CLUSTER

NEH Institute - Summer 1982

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Acknowledgements

Thanks to Don Brodeur, Chuck Eby, Michelle Loris, and Grace Farrell Lee whose commitment to an interdisciplinary writing program, confidence in me, and lots of fast footwork made it possible for me to be present at this NEH Institute. Thanks, also, to the "Glenside Gurus", Elaine Maimon, Peggy Horodowich, Jerry Belcher, and Barry O'Connor who "gave witness" each day that cross-curricular writing programs are truly of this world. My appreciation goes also to Blanche Peterson, my colleague from Trumbull High School, who always had the wheelbarrow when I needed It. Additionally, special applause goes to many of my fellow Institute participants who read my material and listened while I vented, and to Dee Cook, who added a new dimension to my concept of "words in process." Finally, an extra "bravo" goes to Charles Majure, whose after dinner digit discussion gave me my first "eureka" for this work in progress.

P R E F A C E

The following material is the text of a talk given at the NEH Institute Colloquium on July 28, 1982, at Beaver College, Glenside, Pa. Basically, it is a lesson plan developed as a result of my studies during the five-week seminars. When I returned to my home institution, I found it impossible to contain my enthusiasm for the project and so, rather than wait until spring when the proposed course cluster for which the lesson had been developed would be in place, I launched my project in a freshman English section not "officially" part of the proposal.

In the Appendix which follows the text of my remarks, you will find samples of student writing gleaned from that lesson. I, therefore, wish to thank my students at Sacred Heart University as well as my instructors at the NEH Institute for "lending me a hand."

Marian Calabrese

I stand here before you today not only with, but also as work in progress. I came to the NEH Institute from Sacred Heart University armed with a comprehensive proposal which sought to build on a already existing foundation of interdisciplinary courses, cross-curricular faculty development workshops, and projects with our cooperative institution, Trumbull High School.

Don Murray suggests the presence of a "listening eye" in the process of revision, and the instruction that I've received here at Beaver has caused me to refocus that eye in a more specific way and, consequently, submit a far more modest proposal today. My immediate concern is the drafting of an English curriculum which will complement the Biology section of our first course cluster, scheduled to be taught in January, 1983. In the proposed course, I plan to incorporate practical strategies of assignment-making, peer review, and invention based on the theories of Mina Shaughnessy, Kenneth Bruffee, and Richard Young, respectively. In the Biology/English cluster, writing will be taught not merely as a conveyance of information, but rather as Janet Emig tells us, as a "mode of learning." Writing will be used as a way to solve academic problems, a way to "see and think." The assignments devised by my colleague in Biology and by me will provide the practical opportunities for writing to be used as a way to discover what is to be said, to whom, for what purpose, and in what context.

As general background, let me say that the English component of the cluster will utilize as texts and readings,

Lives of a Cell by Lewis Thomas, Writing in the Arts and Sciences by Elaine Maimon, Gerald Belcher, Gail Hearn, Barbara Nodine, and Finbarr O'Connor, The Random House Handbook, and an article from Scientific American, "Eye Witness Testimony" by Robert Buckhout.

Today, I will demonstrate a portion of the first in-class writing assignment for the English section. The purpose of the lesson is to provide the students with an opportunity to observe, to record, and to organize data which is immediately available to them--skills needed not only for the academic setting, but also for the real world. Join with me now and be those students. Just lend me a hand...

1. On the paper you have just been given, describe the hand with which you are not writing. Jot down observation notes and organize them into a brief paragraph.

2. Read several paragraphs aloud. Briefly comment on how they differ from each other. What are the reasons that account for the differences?

3. Consider the definitions of "hand" which I will read to you from:

   a) Black's Medical Dictionary, 31st ed. (very scientific, narrow audience),

   b) McGraw-Hill Encyclopedia of Science and Technology, 5th ed. (scientific, but for a broad, general audience),

   c) an excerpt from Booker T. Washington's speech given at the 1895 Cotton States and International Exposition in Atlanta, Ga. (hand used as metaphor in a statement made to a primarily Southern, but economically and racially mixed audience), and,

   d) Pope John Paul II's Poetic statement to all people the "hands are the heart's landscape."

Note that the definition changes dramatically according to purpose of discourse and intended audience.

At this point, I'd like you to step back into your roles of administrators and fellow Institute participants so that I may share with you the purposes of this lesson and the directions it may take.

In the actual classroom situation, reading aloud of the paragraphs yields a wide variety of responses to the assignment. Students must face questions such as "Why did you write this paragraph? For what audience?"

Students note the assignment's lack of direct focus and become aware of their ability to take an active role in directing their discourse to a specific audience for a specific reason.

From questions raised during the remainder of the lesson, students define and differentiate between writer-based self-expressive or private discourse and reader-based expository writing which is intended to "go public."

Students will then be asked to rearrange their original observation notes on the hand and to write a paragraph which orders the data from the smallest unit observed to the largest. They will hear me read "The Five Perspectives" by W. Ross Winterowd (based on Richard Young's particle, wave, and field theory of idea generating) and be asked to write for homework, a journal entry in which they will attempt to fit their observation notes, as well as the conclusions drawn from

them, into the categories Winterowd suggests. This shifting of perspective is designed to give students yet another way to impose meaning on the data they have collected. Sharing the entries at the beginning of the next class session will provide an additional opportunity to impose meaning on the data they have collected and to discuss the purpose and audience for a piece of discourse. Asking students how their writing would differ had it been assigned in Biology class would open new avenues for exchange and provide a context in which students can make cross-curricular connections. In their first writing assignment, therefore, students will:

1. begin to observe and record available data;
2. see relationships among and between objects observed;
3. become aware of the intended audience of a piece of discourse;
4. use writing as a mode of learning transferrable to Biology.

Surely other possible assignments may spring from these beginnings, but I have attempted to show you through your participation in this exercise one way in which writing across Biology and English curricula can commence. This is but one element of a kaleidoscope of learning about which I am very enthusiastic; and through the writings of Lewis Thomas, Robert Buckhout, and the students themselves, I hope to teach as well as learn more about making connections across the curriculum. Thanks for "lending a hand."

Appendix

The following prargraphs are samples of those collected during the in-class writing experiment described in this paper. They are un-edited first-draft responses which the students have graciously permitted me to use here. The four paragraphs graphically illustrate the diverse responses students make to an assignment which fails to identify audience or purpose of discourse.

1. The hand is located at the end of an arm. It consists of a central area, the palm and five separate and movable extremities. Each of the extremities, called fingers has three joints to allow it to be bent toward the palm. At the end of each finger is a hard, flexible covering called the fingernail This is a protective device for the top of the fingertip. The reverse of the fingertip is covered with a pattern of delicate ridges in the skin. The pattern is basically the same on all fingers but minute differences do individualize them. One of the fingers is called a thumb. It opposes the fingers and makes the hand more adept at picking up and holding objects. The back of the hand is generally smooth with small folds of skin around the joints of the fingers. The palm is covered with fold lines ranging from the very noticable ones running the width of the hand to the very faint ones at the base of the thumb.

Lisa Renkowsky

2. The hand begins with rose-tipped nails. The fingers should be slim, except for the knuckle, remnants of cracking noises years ago. On the first finger, a stray slash of ink indicates that this hand is not a meticulously kept one of leisure. The second and third fingers of the hand are bare while the fourth and fifth are adorned in silver, one by a 9-faceted band, the other by a double s design. Two freckles are visible upon first glance at the back of this hand, though more are discovered upon further scrutiny. The hand narrows, and ends in a black and gold band, a cheap sign of durability and dependability, a sign of the hand's owner's respect for time.

Sally Krawiec

3. The distance between my thumb and index finger is almost twice that of my pinky and ring finger. In length my middle finger is the largest then ring, index, pinky and thumb in descending size. My fingers are fairly muscular and are not straight--this allows me to make a fist. When I do this my knuckles are very prominent. The hair on the outside of my hand and fingers seems to grow to the left. The inside of my hand has more colo than the outside and I can see the veins in my palm. I have a small cut on the 1st joint of my middle finger and callous on my Index, ring, and Pinky fingers--this could be do to sailing where I have to handle wet lines under high tension, and there are vertical lines on the first joints of my fingers. I like my hand, I think I'll keep it--unless some strange stroke of fate decides otherwise!

Jonathan S. Koehm

4. As I ponder the various special qualities my left hand exhibits I notice various characteristics which until now have been unnoticed to me. The outside of my hand which serves a less useful purpose than the inside is very hairy and bony. The fingers themselves are bony with worn marks around the nail area due to excessive work with the hand. The outside of my hand is full of freckles which dot the hand as craters dot the moon. They appear in and around the many scaley lines which make up the exterior portion of my left hand. On the thumb of this hand, around the edge of the nail are ink marks from the ink which spilled on my hand yesterday and has not been full cleaned. The outside part of my hand is more colorful than the inside part of the hand which seems to be a colorless mass of folds when halfway closed and a colorless mass of veins when open to its fullest extent. The inside of this wondrous instrument is lined with a palm print which spreads itself around the palm in many directions but still flows uniformly. The inside knuckle of this hand is worn from many hours of strenuous work utilizing this area of the hand to aid in many difficult tasks. The whole hand itself seems to be a compact instrument which if not seen attached to the body could be thought to have a mind of its own.

Tom Farrelly

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